Acute flares and chronic mucosal inflammation characterize inflammatory bowel diseases (IBD). Oral treatments are needed that can induce disease remission and offer long term maintenance in IBD with superior safety. Lipoxin A4 (LXA4) and its analogs are counterregulatory eicosanoids that resolve acute inflammation, allergy and adaptive immunity. We have shown that LXA4 analogs are orally available and potent anti-inflammatory agents. Once daily administration of a synthetic lipoxin analog (0.3-1mg/kg) prevents and treats trinitrobenzene sulphonate-induced colitis (TNBS colitis), a model with polarized Th1 adaptive immunity. Immune modulation by lipoxin analogs, including new findings on adaptive immunity regulation in colitis models, will be discussed in the context of CD pathogenesis. Lipoxin analogs provide a new oral approach to treating IBD, with a high therapeutic ratio compared to current non-specific immunosuppressive agents.